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(54) High-temperature neutralization of N-acyl sarcosines

(57) A process for the direct neutralization of N-acyl sarcosines wherein all raw materials and products are in the liquid state up to the final crystallization of the product. The N-acyl sarcosines are neutralized in a continuous or batch mode with caustic such as aqueous hydroxide at elevated temperatures to produce a molten, free flowing liquid, which can then be crystallized to solid product.

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EUROPEAN SEARCH REPORT

Application Number
EP 95 10 8442

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	DE-A-20 26 623 (GRACE W R & CO) 11 February 1971 * claims 1,3; examples 1-5 *	1-9	C07C231/12 C07C233/47
X	EP-A-0 505 129 (GRACE W R & CO) 23 September 1992 * claim 1; example 1 *	1-9	
A	GB-A-1 483 500 (AJINOMOTO KK) 17 August 1977	1-9	
A	US-A-5 186 855 (CRUDDEN JOSEPH J) 16 February 1993	1-9	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			C07C
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 21 May 1996	Examiner Janus, S
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ All claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid,
namely claims:
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions,

namely:

see sheet -B-

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid,
namely claims:
- ☐ None of the further search fees has been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims,
namely claims:



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LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirement of unity of invention and relates to several inventions or groups of inventions, namely:

The following inventions are not linked by a common inventive concept :

1. claims 1-7 : a process for the neutralisation of N-acyl sarcosine characterised by the fact that the temperature is higher than the melting point of the starting material.
2. claims 8 and 9 : a process for the neutralisation of N-acyl sarcosine characterised by the use of a pressure of at least 20 inches Hg and temperatures between 70 and 100°C.

The reason for this objection is that the features these different processes have in common, essentially the neutralisation of N-acyl sarcosine at temperatures above room temperature is already known in the art (see the first document from the partial search report). The different characterising features (essentially the choice of a more specific range of temperature for invention 1 and the choice of a minimum pressure for invention 2) cannot be regarded as being linked by a common inventive concept.